

DEDICATORY.

City, did in my hearing, complain of the Effects of this Smoake both in her Breast and Lungs, whilst She was in Your Majesties Palace. I cannot but greatly apprehend, that Your Majesty (who has been so long accus-tom'd to the excellent *Aer* of other Countries) may be as much offended at it, in that regard also; especially since the Evil is so *Epidemicall*; indan-gering as well the Health of Your Subjects, as it sullies the Glory of this Your Imperial Seat.

Sir, I prepare in this short Discourse, an expedient how this pernicious *Nui-sance* may be reformed; and offer at another also, by which the *Aer* may not only be freed from the present In-conveniency; but (that remov'd) to render not only Your Majesties Palace, but the whole City likewise, one of the sweetest, and most delicious Ha-bitations in the World; and this, with
little.

little or no expence ; but by improving those Plantations which Your Majesty so laudably affects , in the moyst , depressed and Marshy Grounds about the Town , to the Culture and production of such things , as upon every gentle emission through the *Aer* , should so perfume the adjacent places with their breath ; as if , by a certain charm , or innocent *Magick* , they were transferred to that part of *Arabia* , which is therefore styl'd the *Happy* , because it is amongst the Gums and precious spices. Those who take notice of the Sent of the *Orange-flowers* from the Rivage of *Genoa* , and *St. Pietro dell' Arena* ; the Blossomes of the *Rosemary* from the Coasts of *Spain* many Leagues off , at Sea ; or the manifest , and odoriferous wafts which flow from *Fontenay* and *Vaugirard* , even to *Paris* in the season of *Roses* , with the contrary Effects of those less pleasing

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pleasing smells from other accidents ;
 will easily consent to what I suggest :
 And, I am able to enumerate a Cata-
 logue of native *Plants*, and such as
 are familiar to our Country and *Clime*,
 whose redolent and agreeable Emif-
 sions would even ravish our senses, as
 well as perfectly improve and melio-
 rate the *Aer* about *London*; and that,
 without the least prejudice to the Ow-
 ners and Proprietors of the Land to
 be employ'd about it. But because I
 have treated of this more at large in
 another curious and noble subject,
 which I am preparing to present to
 Your Majesty, as God shall afford
 me Leasure to finish it, and that I
 give a **T**ouch of it in this Discourse,
 I will enlarge my Addresses no farther,
 then to beg pardon for this Presump-
 tion of

SIR,

Your Majesties ever Loyal, most obedient
 Subject, and Servant.

J. EVELYN.

To the Reader.

I Have little here to add to implore thy good Opinion and approbation, after I have submitted this Essay to his Sacred Majesty : But as it is of universal benefit that I propound it ; so I expect a civil entertainment and reception. I have, I confesse, been frequently displeased at the small advance and improvement of Publick Works in this Nation, wherein it seems to be much inferior to the Countries and Kingdomes which are round about it ; especially, during these late years of our sad Confusions : But now that God has miraculously restor'd to us our Prince, a Prince of so magnanimous and Publick a Spirit, we may promise our selves not only a recovery of our former Splendor ; but also whatever any of our Neighbours enjoy of more universal benefit, for Health or Ornament : In summe, whatever may do honour to a Nation so perfectly capable of all advantages.

It is in order to this, that I have presumed to offer these few Proposals for the Meliorating and refining the Aer of London ; being extremely amaz'd, that where there is so great an affluence of all things which may render the People of this vast City, the most happy upon Earth ; the sordid,

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To the READER.

did, and accursed Avarice of some few Particular Persons, should be suffered to prejudice the health and felicity of so many: That any Profit (besides what is of absolute necessity) should render men regardlessse of what chiefly imports them, when it may be purchased upon so easie conditions, and with so great advantages: For it is not happinesse to possesse Gold, but to enjoy the Effects of it, and to know how to live cheerfully and in health, Non est vivere, sed valere vita. That men whose very Being is Aer, should not breath it freely when they may; but (as that Tyrant us'd his Vassals) condemn themselves to this misery & Fumo præfocari, is strange stupidity: yet thus we see them walk and converse in London, pursu'd and haunted by that infernal Smoake, and the funest accidents which accompany it wheresoever they retire.

That this Glorious and Antient City, which from Wood might be rendred Brick, and (like another Rome) from Brick made Stone and Marble; which commands the Proud Ocean to the Indies, and reaches to the farthest Antipodes, should wrap her stately head in Clouds of Smoake and Sulphur, so full of Stink and Darknesse, I deplore with just Indignation. That the Buildings should be compos'd of such a Congestion of misshapen and extravagant Houses; That the
Streets

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Streets should be so narrow and incommodious in the very Center, and busiest places of Intercourse: That there should be so ill and uneasie a form of Paving under foot, so troublesome and malicious a disposure of the Spouts and Gutters overhead, are particulars worthy of Reproof and Reformation; because it is hereby rendred a Labyrinth in its principal passages, and a continual Wet-day after the Storm is over. Add to this the Deformity of so frequent Wharves and Magazines of Wood, Coale, Boards, and other course Materials, most of them imploying the Places of the Noblest aspect for the situation of Palaces towards the goodly River, when they might with far lesse Disgrace, be removed to the Bank-side, and afterwards disposed with as much facility where the Consumption of these Commodities lyes; a Key in the mean time so contrived on London-side, as might render it lesse sensible of the Reciprocation of the Waters, for Use and Health infinitely superiour to what it now enjoys. These are the Desiderata which this great City labours under, and which we so much deplore. But I see the Dawning of a brighter day approach; We have a Prince who is Resolv'd to be a Father to his Country; and a Parliament whose Decrees and Resentiments take their Impression from his Majesties great Genius, which studies only the Publick

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Publick Good. It is from them therefore, that we Augure our future happinesse; since there is nothing which will so much perpetuate their Memories, or more justly merit it. Medails and Inscriptions have heretofore preserv'd the Fame of lesse Publick Benefits, and for the Repairing of a Dilapidated Bridge, a decay'd Aquæduct, the Paving of a Way, or draining a foggy Marsh, their Elogies and Reverses have out-last'd the Marbles, and been transmitted to future Ages, after so many thousand Revolutions: But this is the least of that which we Decree to our August CHARLES, and which is due to his Illustrious Senators; because they will live in our Hearts, and in our Records, which are more permanent and lasting.

1. May 1661.

Farewell.

FUMIFUGIUM:

FUMIFUGIVM:

O R,

The Inconveniency of the Smoak of LONDON dissipated, &c.

PART. I.

IT is not without some considerable *Analogy*, that sundry of the *Philosophers* have nam'd the *Aer* the *Vehicle* *Anima, quasi* of the *Soul*, as well as that of the Earth, and this frail Vessell of ours which contains it; since we all of us finde the benefit which we derive from it, not onely for the necessity of common Respiration and functions of the Organs; but likewise for the use of the *Spirits* and *Primi-gene Humors*, which doe most neerly approach that Divine particle. But we shall not need to insist, or refine much on this sublime Subject; and, perhaps it might scandalize scrupulous Persons to pursue to the height it may possibly reach (as *Diogenes* and *Anaximenes* were wont to *Deifie* it) after we are past the *Aetherial*, which is a certain *Aer* of *Plato's* denomination, as well as that of the lesse pure, more turbulent and dense, which, for most part we live and breath in, and which comes here to be examin'd as it relates to the design in hand, the City of *London*, and the environs about it. In Times.

It would doubtlesse be esteem'd for a strange and extravagant *Paradox*, that one should affirme, that the *Aer* it selfe is many times a potent and great disposer to *Rebellion*; and that *Insulary* people, and indeed, most of the *Septentrion* Tracts, where this *Medium* is grosse and heavy, are extremely versatile and obnoxious to change both in Religious and Secular Affaires: Plant the Foote of your Compasses on the very *Pole*, and extend the other limb to 50 degrees of *Latitude*: bring it about 'till it describe the Circle, and then read the Histories of those Nations inclusively and

make the Calculation. It must be confess'd, that the *Aer* of those *Climates*, is not so pure and Defecate as those which are neerer the *Tropicks*, where the Continent is lesse ragged, and the Weather more constant and steady, as well as the Inclination and Temper of the Inhabitants.

But it is not here that I pretend to speculate upon these Causes, or nicely to examine the Discourses of the *Stoicks* and *Peripateticks*, whether the *Aer* be in it self, generally cold, humid, warm or exactly temper'd so as best conduces to a *materiall principle*, of which it is accounted one of the four; because they are altogether *Physicall* notions, and do not come under our cognizance as a pure and sincere Element; but as it is particularly inquinatèd, infected, participating of the various Accidents, and inform'd by extrinsecal Causes, which render it noxious to the *Inhabitants*, who derive and make use of it for Life. Nevertheless, for distinction sake, we may yet be allow'd to repute some *Aers* pure, comparatively, *viz.* That which is cleare, open, sweetely ventilated and put into motion with gentle gales and breezes; not too sharp, but of a temperate constitution. In a word, *That* we pronounce for good and pure *Aer*, which heat not to sweats and faintnesse; nor cooles to rigidnesse and trembling; nor dries to wrinkles and hardnesse; nor moystens to resolution and over much softnesse. The more hot promotes indeede the Witt, but is weak and trifling; and therefore *Hippocrates* speaks the *Asiaticus* people *Imbellies* and Effeminate, though of a more artificiall and ingenious Spirit: If over cold and keen, it too much abates the heat, but renders the body robust and hardy; as those who are born under the Northern *Bears*, are more fierce & stupid, caused by a certain internal *Antiperistasis* and universal Impulsion. The drier *Aer* is generally the more salutary and healthy, so it be not too sweltery and infested with heat or fuliginous vapours, which is by no means a friend to health and Longevity, as *Avicen* notes of the *Ethiops* who seldome arived to any considerable old Age. As much to be reproved is the moyst, *viz.* that which is over mix'd with *aqueous* exhalations, equally pernicious and fuscipible of putrefaction; notwithstanding does it ofner produce faire and tender skins, and some last along while in it; but commonly not so healthy, as in *Aer* which is more dry. But the impure and *Oligimus*, as that which proceeds from stagnated places, is of all other, the most vile and Pestilent.

L'b. de Aere
Aqu. & Locis.

Now,

The Smoak of London dissipated.

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Now, that through all these diversities of *Aer*, *Mores Hominum do Corporis temperamentum Sequi*, is for the greater part so true an observation, that a Volume of Instances might be produced, if the Common notices did not sufficiently confirme it even to a Proverb. The *Aer* on which we continually prey, perpetually inspiring matter to the *Animall* and *Vitall* Spirits, by which they become more or lesse obfuscated, clouded and render'd obnoxious; and therefore that Prince of Physicians *Hippocrates*, wittily calls a sincere and pure *Aer*, The *Intervance and Interpreter of Prudence*. The celestiall influences being so much retarded or assisted, and improv'd through this omnipresent, and as it were, universal *Medium*: For, though the *Aer* in its simple substance cannot be vitiated; yet, in its prime qualities it suffers these infinite mutations, both from superiour and inferiour Causes, so as its accidentall effects become almost innumerable;

De Morbo
Sacro.

Let it be farther consider'd, what is most evident, That the Body feedes upon *Meats* commonly but at certain periods and stated times, be it twice a day or oftner; whereas, upon the *Aer*, or what accompanies it (*est enim in ipso Aere occultus visa cibus*) it is allwaies preying sleeping, or waking; and therefore, doubtlesse the election of this constant and assiduous Food, should something concerne us, I affirme, more then even the very *Meat* we eat, whereof so little and indifferent nourishes and satisfies the most temperate and best Educated persons. Besides, *Aer* that is corrupt insinuates it self into the vital parts immediately; whereas the meats which we take though never so ill condition'd, require time for the concoction, by which its effects are greatly mitigated; whereas the other, passing so speedily to the Lungs, and virtually to the Heart it self, is deriv'd and communicated over the whole masse; In a word, as the Lucid and noble *Aer*, clarifies the Blood, subtilizes and excites it, cheering the Spirits and promoting digestion; so the dark, and grosse (on the Contrary) perturbs the Body, prohibits necessary Transpiration for the resolution and dissipation of ill Vapours, even to disturbance of the very Rational faculties, which the purer *Aer* does so far illuminate, as to have rendred some Men healthy and wise even to Miracle. And therefore the Empeysoning of *Aer*, was ever esteem'd no lesse fatall then the poysoning of Water or Meate it self, and forborn even amongst *Barbarians*; since (as is said) such Infections become more apt to insinuate themselves and

betray the very Spirits, to which they have so neer a cognation. Some *Aers* we know are held to be *Alexipharmac* and even deleterious to Poyson it self, as 'tis reported of that of *Ireland*: In some we finde *Carcasses* will hardly putrifie, in others again rot and fall to pieces immediately.

Lib. 1. cap. 1.

Aeres Locorum.

From these, or the like considerations therefore, it might well proceed, that *Vitruvius*, and the rest who follow that *Master-Builder*, mention it as a Principle, for the accomplishment of their *Architect*, that being skilfull in the Art of *Physick*, amongst other Observations, he sedulously examine the *Aer* and *Situation* of the places where he designs to build, the Inclinations of the Heavens, and the Climats; *Sine his enim rationibus nulla salubris habitatio fieri potest*: there is no dwelling can be safe or healthy without it. 'Tis true, he does likewise adde *Water* also, which is but a kinde of condensed *Aer*; though he might have observ'd, that Element to be seldome bad, where the other is good; omitting onely some peculiar Fountains and *Mineral Waters*, which are percolated through *Mines* and *Metalique Earths* less frequent, and very rarely to be encounter'd.

Now whether those who were the Antient *Founders* of our goodly *Metropolis*, had considered these particulars (though long before *Vitruvius*) I can no waies doubt or make question of; since having respect to the nobleness of the situation of *London*, we shall every way finde it to have been consulted with all imaginable Advantages, not onely in relation to Profit, but to Health and Pleasure; and that, if there be any thing which seems to impeach the two last *Transcendencies*, it will be found to be but something Extrinsecal and Accidental onely, which naturally does not concern the Place at all; but, which may very easily be reformed, without any the least inconvenience, as in due time we shall come to demonstrate.

For first, the City of *London* is built upon a sweet and most agreeable Eminency of Ground, at the North-side of a goodly and well-condition'd River, towards which it hath an Aspect by a gentle and easie declivity, apt to be improv'd to all that may render her *Palaces*, *Buildings*, and *Avenues* usefull, gracefull and most magnificent: The *Fumes* which exhale from the Waters and lower Grounds lying South-ward, by which means they are perpetually attracted, carried off or dissipated by the Sun, as soon as they are born and ascend.

Adde

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Adde to this, that the Soil is universally Gravell, not onely where the City it self is placed; but for severall Miles about the Countreys which environ it: That it is plentifully and richly irrigated, and visited with Waters which Christalize her Fountains in every Street, and may be conducted to them in such farther plenty, as *Rome* her self might not more abound in this liquid ornament, for the pleasure and divertisement, as well as for the use and refreshment of her Inhabitants. I forbear to enlarge upon the rest of the conveniencies which this August and Opulent City enjoys both by Sea and Land, to accumulate her *Encomiums*, and render her the most considerable that the *Earth* has standing upon her ample bosome; because, it belongs to the *Orator* and the *Poet*, and is none of my Institution: But I will infer, that if this goodly City justly challenges what is her due, and merits all that can be said to reinforce her Praises, and give her *Title*; she is to be reliev'd from that which renders her less healthy, really offends her, and which darkens and eclipses all her other Attributes. And what is all this, but that Hellish and dismal Cloud of *SEA-COAL*? which is not onely perpetually imminent over her head, For as the Poet,

Conditur in tenebris altum caligine Cælum.

Æneid. 11.

but so universally mixed with the otherwise wholesome and excellent *Aer*, that her *Inhabitants* breathe nothing but an impure and thick Mist accompanied with a fuliginous and filthy vapour, which renders them obnoxious to a thousand inconveniences, corrupting the *Lungs*, and disordering the entire habits of their Bodies; so that *Catarrhs*, *Phthisicks*, *Coughs* and *Consumptions* rage more in this one City than in the whole Earth besides.

I shall not here much descant upon the Nature of *Smoaks*, and other Exhalations from things burnt, which have obtain'd their severall *Epithetes*, according to the quality of the Matter consumed, because they are generally accounted noxious and unwholsome, and I would not have it thought, that I doe here *Fumos vendere*, as the word is, or blot paper with insignificant remarks: It was yet haply no inept derivation of that *Criticke*, who took our *English*, or rather, *Saxon* appellative, from the *Greek* word *εμύχα* *corrumpto* and *exuro*, as most agreeable to its destructive effects, especially of what we doe here so much declaim against, since this is certain, that of all the common and familiar materials which emit it, the immoderate use of, and indulgence to

Sea-coale alone in the City of *London*, exposes it to one of the fowleſt Inconveniencies and reproches, that can poſſibly befall ſo noble, and otherwiſe, incomparable City: And that, not from the *Culinary* fires, which for being weak, and leſſe often fed below, is with ſuch eaſe diſpell'd and ſcatter'd above, as it is hardly at all diſcernible, but from ſome few particular Tunnells and Iſſues, belonging only to *Brewers*, *Diers*, *Lime-burners*, *Salt*, and *Sope-boylers*, and ſome other private Trades, One of whoſe *Sp'acles* alone, does manifeſtly infect the *Aer*, more, than all the Chimnies of *London* put together beſides. And that this is not the leaſt *Hyperbolie*; let the beſt of Judges decide it, which I take to be our ſenſes: Whiſt theſe are belching it forth their ſooty jaws, the City of *London* reſembles the face rather of *Mount Aetna*, the Court of *Vulcan*, *Stromboli*, or the Suburbs of *Hell*, then an Aſſembly of Rational Creatures, and the Imperial ſeat of our incomparable *Monarch*. For when in all other places the *Aer* is moſt Serene and Pure, it is here Eccliſed with ſuch a Cloud of Sulphure, as the Sun it ſelf, which gives day to all the World beſides, is hardly able to penetrate and impart it here; and the weary *Traveller*, at many Miles diſtance, ſooner ſmells, then ſees the City to which he repairs. This is that pernicious Smoake which ſullyes all her Glory, ſuperinducing a ſooty Cruſt or furr upon all that it lights, ſpoyling the moveables, tarniſhing the Plate Gildings and Furniture, and corroding the very Iron-bars and hardeſt Stones with thoſe piercing and acrimonious Spirits which accompany its Sulphure; and executing more in one year, then expos'd to the pure *Aer* of the Country it could effect in ſome hundreds.

Claud. de vap.
Prof. l. i.

— *piceaque gravatum*
Fædat nube diem;

It is this horrid Smoake which obſcures our Churches, and makes our Palaces look old, which ſouls our Clothes, and corrupts the Waters, ſo as the very Rain, and refreshing Dews which fall in the ſeveral Seasons, precipitate this impure vapour, which, with its black and tenacious quality, ſpots and contaminates whatſoever is expos'd to it.

Ovid.

— *Calidoque involvitur undique fumo.*

It is this which ſcatters and ſtrews about thoſe black and ſmummy *Atomes* upon all things where it comes, inſinuating it ſelf into our very ſecret Cabinets, and moſt precious *Repoſitories*: Finally,

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it is this which diffuses and spreads a Yellowness upon our choicest Pictures and Hangings: which does this mischief at home; is *Avernus* to Fowl, and kills our *Bees* and *Flowers* abroad, suffering nothing in our Gardens to bud, display themselves, or ripen; so as our *Anemonies* and many other choicest Flowers, will by no Industry be made to blow in *London*, or the Precincts of it, unless they be raised on a *Hot-bed*, and govern'd with extraordinary Artifice to accelerate their springing, imparting a bitter and ungrateful Taste to those few wretched *Fruits*, which never arriving to their desired maturity, seem, like the *Apples* of *Sodom*, to fall even to dust, when they are but touched. Not therefore to be forgotten, is that which was by many observ'd, that in the year when *New-castle* was besieg'd and blocked up in our late Wars, so as through the great Dearth and Scarcity of Coales, those smoky Works many of them were either left off, or spent but few Coales in comparison to what they now use: Divers Gardens and Orchards planted even in the very heart of *London*, (as in particular my Lord Marquess of *Hertfords* in the *Strand*, my Lord *Bridgewaters*, and some others about *Barbican*) were observed to bear such plentiful and infinite quantities of *Fruits*, as they never produced the like either before or since, to their great astonishment: but it was by the Owners rightly imputed to the penury of Coales, and the little Smoake, which they took notice to infect them that year: For there is a virtue in the *Air*, to penetrate, alter, nourish, yea and to multiply Plants and *Fruits*, without which no vegetable could possibly thrive; but as the *Poet*.

Aer aeger: vitio moriens sitit aeris herba:

Georg. 7.

So as it was not ill said by *Paracelsus*, that of all things, *Aer* only could be truly affirm'd to have *Life*, seeing to all things it gave *Life*. Argument sufficient to demonstrate, how prejudicial it is to the Bodies of men; for that can never be *Air* fit for them to breathe in, where nor *Fruits*, nor *Flowers* do ripen, or come to a seasonable perfection.

I have strangely wondred, and not without some just indignation, when the South-wind has been gently breathing, to have sometimes beheld that stately House and Garden belonging to my Lord of *Northumberland*, even as far as *White-hall* and *Westminster*, wrapped in a horrid Cloud of this Smoake, issuing from a *Brewhouse* or two contiguous to that noble Palace: so as coming

* I doe assent,
that both *Lime*
& *Sulphur* are
in some affe-
ctions specifics
for the *Lungs*;
but then they
are to be so
prepared, as

nothing save the purest parts be received into the body (for so Physicians prescribe *Flores sulph. &c.*) and not accompanied with such gross and plainly vitulent vapours, as these fires send forth: Nor are they (as accurately prepar'd as Art can render them) to be perpetually used, but at certain periods, in *Formes*, and with due *Regiment*.

ing up the River, that part of the City has appear'd a *Sea* where no Land was within ken; the same frequently happens from a *Lime-kelne* * on the *Banke-side* neer the *Falcon*, which when the Wind blowes Southern, dilates it self all over that Poynt of the *Thames*, and the opposite part of *London*, especially about *S. Paul's*, poysoning the *Aer* with so dark and thick a Fog, as I have been hardly able to pass through it, for the extraordinary stench and *halitus* it sends forth; and the like is neer *Fox-hall* at the farther end of *Lambeth*.

Now to what funest and deadly Accidents the assiduous invasion of this Smoak exposes the numerous Inhabitants, I have already touch'd, whatsoever some have fondly pretended, not considering that the constant use of the same *Aer*. (be it never so impure) may be consistent with Life and a Valetudinary state; especially, if the Place be native to us, and that we have never lived for any long time out of it; Custom, in this, as in all things else, obtaining another Nature, and all Putrefaction, proceeding from certain Changes, it becomes, as it were, the *Form*, and Perfection of that which is contain'd in it: For so (to say nothing of such as by assuefaction have made the rankest poysons their most familiar Diet) we read that *Epimenides* continu'd fifty years in a damp *Cave*, the *Eremites* dwelt in Dens, and divers live now in the *Fens*; some are condemn'd to the *Mines*, and others, that are perpetually conversant about the *Forges*, *Fornaces* of Iron and other Smoaky Works, are little concern'd with these troublesome accidents: But as it is not (I perswade my self) out of choyce, that these Men affect them; so nor will any man, I think, commend and celebrate their manner of Living. A *Tabid* Body might possibly trail out a miserable Life of seven or eight years by a *Sea-cole* Fire, as 'tis reported the *Wife* of a certain famous *Physician*, did of late by the Prescription of her Husband; but it is to be considered also, how much longer, and happier she might have survived in a better and more noble *Aer*; and that old *Par*, who lived in health to an Hundred and fifty years of Age, was not so much concern'd with the change of Diet (as
some

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some have affirm'd) as with that of the *Aer*, which plainly wither'd him, and spoyl'd his Digestion in a short time after his arrival at *London*.

There is, I confesse, a certain *Idiosyncrasia* in the Composition of some persons, which may fit and dispose them to thrive better in some *Aers*, then in other: But, it is manifest, that those who repair to *London*, no sooner enter into it, but they find a universal alteration in their Bodies; which are either dryed up or inflam'd, the humours being exasperated and made apt to putrifie, their sensories and perspiration so exceedingly stopp'd, with the losse of Appetite, and a kind of general stupefaction, succeeded with such *Cathars* and *Distillations*, as do never, or very rarely quit them, without some further Symptomes of dangerous Inconveniency so long as they abide in the place; which yet are immediately restored to their former habit, so soon as they are retired to their Homes and enjoy the fresh *Aer* again. And here I may not omit to mention what a most Learned Physician and one of the Colledge assur'd me, as I remember of a Friend of his, who had so strange an *Antipathy* to the *Aer* of *London*: that though he were a *Merchant*, and had frequent business in the City, was yet constrained to make his Dwelling some miles without it; and when he came to the *Exchange*, within an hour or two, grew so extremely indispos'd, that (as if out of his proper Element) he was forced to take horse (which us'd therefore constantly to attend him at the Entrance) and ride as for his Life, till he came into the Fields, and was returning home again, which is an Instance so extraordinary, as not, it may be, to be parallell'd in any place of *Europe*, save the *Grotto del Cane*, nere *Naples*, the *Os Plutonium* of *Silvius*, or some such *subterranean* habitation. For Diseases proceed not from so long a Series of causes, as we are apt to conceive; but, most times from those obvious, and despicable mischiefs, which yet we take lesse notice of, because they are familiar: But how frequently do we hear men say (speaking of some deceased Neighbour or Friend) *He went up to London, and took a great Cold, &c. which he could never afterwards claw off again.*

I report my self to all those who (during these sad confusions) have been compelled to breath the *Aer* of other Countries for some years; if they do not now perceive a manifest alteration in their Appetite, and clearnesse of their Spirits; especially such

as have liv'd long in *France*, and the City of *Paris*; where, to take off that unjust reproch, the *Plague* as seldome domineers, as in any part of *Europe*, which I more impute to the Serenity and Purity of the *Aer* about it, then to any other qualities which are frequently assign'd for the cause of it by divers Writers. But if it be objected that the purest *Aers* are soonest infected; it is answered, that they are also the soonest freed again; and that none would therefore choose to live in a corrupt *Aer*, because of this Article: *London* 'tis confess'd is not the only City most obnoxious to the Pestilence; but it is yet never clear of this Smoake which is a *Plague* so many other ways, and indeed intolerable; because it kills not at once, but always, since still to languish, is worse then even Death it self. For is there under Heaven such Coughing and Snuffing to be heard, as in the *London* Churches and Assemblies of People, where the Earking and the Spitting is uncessant and most importunate. What shall I say?

Lucan.

Hinc hominum pecudumque Lues.—

And what may be the cause of these troublesome effects, but the inspiration of this infernal vapour, accompanying the *Aer*, which first heats and sollicit the *Aspera Arteria*, through one of whose Conduits, partly *Cartilaginous*, and partly *membranous*, it enters by several branches into the very *Parenchyma*, and substance of the *Lungs*, violating, in this passage, the *Larynx* and *Epiglottis*, together with those multiform and curious Muscles, the immediate and proper Instruments of the *Voyce*, which becoming rough and drye, can neither be contracted, or dilated for the due modulation of the *Voyce*; so as by some of my Friends (studious in *Musick*, and whereof one is a Doctor of Physick) it has been constantly observ'd, that coming out of the *Country* into *London*, they lost *Three whole Notes* in the compass of their *Voice*, which they never recover'd again till their retreat; *Adeo enim Animantes* (to use the *Orators* words) *aspiratione Aeris sustentantur, ipseque Aer nobiscum videt, nobiscum audit, nobiscum sonat*: In summe, we perform nothing without it.

Cic. de Nat. Deor.

Whether the Head and the Brain (as some have imagined) take in the ambient *Aer*, nay the very *Arteries* through the skin universally over the whole body, is greatly controverted; But if so, of what consequence the goodnesse and purity of the *Aer* is, will to every one appear: Sure we are, how much the Respiration is perturb'd,

perturb'd, and concern'd, when the *Lungs* are prepossessed with these grosse and dense vapours, brought along in the *Aer*; which on the other side being pure and fitly qualified, and so conducted to them, is there commixed with the circulating blood, insinuating it self into the left ventricle of the heart by the *Arteria Venosa*, to rarifie and subtilize that precious vehicle of the Spirits and vital flame: The *Vena Arteriosa*, and *Arteria Venosa* disposing themselves into many branches through the *Pulmonique lobes*, for its Convoy, the *Aer* (as we sayd) being first brought into them out of the *Bronchia* (together with the returning blood) to the very Heart it self; so as we are not at all to wonder, at the suddain and prodigious Effects of a poysonous or lesse wholesome *Aer*, when it comes to invade such noble Parts, *Vessells*, *Spirits* and *Humours*, as it visits and attaques, through those subtil and curious passages. But this is not all.

What if there appear to be an *Arsenical* vapour, as well as *Sulphur*, breathing sometimes from this intemperate use of *Sea-Cole*, in great Cities? That there is, what does plainly stupifie, is evident to those who sit long by it; and that which fortun'd to the *Dutchmen* who Winter'd in *Nova Zembla*, was by all *Physicians* attributed to such a deleterious quality in the like fuell, as well as to the Inspissation of the *Aer*, which they thought only to have attemper'd, as is by most esteem'd to be the reason of the same dangerous *halitus* of *Char-Cole*, not fully enkindl'd. But to come neerer yet.

New Castle Cole, as an expert *Physician* affirms, causeth *Consumptions*, *Phthisicks*, and the Indisposition of the *Lungs*, not only by the suffocating abundance of *Smoake*; but also by its *Virulency*: For all *Subterrany* Fuell hath a kind of *virulent* or *Arsenical* vapour rising from it; which, as it speedily destroys those who dig it in the *Mines*; so does it by little and little, those who use it *here* above them: Therefore those *Diseases* (saith this Doctor) most afflict about *London*, where the very *Iron* is sooner consum'd by the *Smoake* thereof, then where this *Fire* is not used.

Boetius a Boet.

And, if indeed there be such a *Venemous* quality latent, and sometimes breathing from this Fuell, we are lesse to trouble our selves for the finding out of the Cause of those *Pestilential* and *Epidemical* Sickneses (*Epidemurum Causa enim in Aere*, says *Galen*) which at divers periods, have so terribly infested and wasted us: or, that it should be so susceptible of infection, all

manner

Discourse of
Symptomatick
Powder.

manner of Diseases having so universal a *vehicle* as is that of the *Smoake*, which perpetually invests this City: But this is also noted by the Learned Sir *Kenelme Digby*, in confirmation of the Doctrine of *Atomical Effluvia's* and Emanations, waisted, mixed and communicated by the *Aer*, where he well observes, that from the Materials of our *London Fires*, there results a great quantity of volatile Salts, which being very sharp and dissipated by the *Smoake*, doth infect the *Aer*, and to incorporate with it, that, though the very Bodies of those corrosive particles escape our perception, yet we soon find their effects, by the destruction which they induce upon all things that they do but touch; spoiling, and destroying their beautiful colours, with their fuliginous qualities: Yea, though a Chamber be never so closely locked up, Men find at their return, all things that are in it, even covered with a black thin Soot, and all the rest of the Furniture as full of it, as if it were in the house of some *Miller*, or a *Bakers Shop*, where the *Flower* gets into their *Cupboards*, and Boxes, though never so close and accurately shut.

This *Coale*, says Sir K. flies abroad, fowling the Clothes that are expos'd a drying upon the Hedges; and in the Spring-time (as but now we mention'd) besoots all the Leaves, so as there is nothing free from its universal contamination, and it is for this, that the *Bleachers* about *Harluem* prohibit by an expresse Law (as I am told) the use of these *Coles*, for some Miles about that Town; and how curious the Diers and Weavers of *Dammask*, and other precious Silks are at *Florence*, of the least ingresse of any *Smoaky vapour*, whilst their Loomes are at work, I shall shew upon some other occasion: But in the mean time being thus incorporated with the very *Aer*, which ministers to the necessary respiration of our Lungs, the *Inhabitants* of *London*, and such as frequent it, find it in all their *Expectorations*; the Spit-
tle, and other excrements (which proceed from them, being for the most part of a blackish and fuliginous Colour: Besides this acrimonious Soot produces another sad effect, by rendring the people obnoxious to Inflammations, and comes (in time) to exulcerate the *Lungs*, which is a mischief so incurable, that it carries away multitudes by Languishing and deep *Consumptions*, as the *Bills of Mortality* do Weekly inform us. And these are those *Endemii Morbi*, vernaculous and proper to *London*. So corrosive is this *Smoake* about the City, that if one would hang up

Gammons

Gammions of Bacon, Beefe, or other Flesh to fume, and prepare it in the Chimnies, as the good *House-Wives* do in the Country, where they make use of sweeter Fuell, it will so *Mummifie*, drye up, wast and burn it, that it suddainly crumbles away, consumes and comes to nothing.

The Consequences then of all this is, that (as was said) almost one half of them who perish in *London*, dye of *Phthysical* and *pulmonic* distempers; That the *Inhabitants* are never free from *Coughs* and importunate *Rheumatisms*, spitting of *Impostumated* and corrupt matter: for remedy whereof, there is none so infallible, as that, in time, the Patient change his *Aer*, and remove into the *Country*: Such as repair to *Paris* (where it is excellent) and other like Places, perfectly recovering of their health; which is a demonstration sufficient to confirm what we have asserted, concerning the perniciousness of that about this City, produc'd only, from this exitial and intolerable Accident.

But I hear it now objected by some, that in publishing this Investive against the *Smoake* of *London*, I hazard the engaging of a whole *Faculty* against me, and particularly, that the *Colledge of Physicians* esteem it rather a preservation against Infections, then otherwise any cause of the sad effects which I have enumerated. But, as I have upon several encounters, found the most able, and Learned amongst them, to renounce this opinion, and heartily wish for a universal purgation of the *Aer* by the expedients I propose; so, I cannot believe that any of that Learned Society, should think themselves so far concern'd, as to be offended with me for that, which (as well for their sakes, as the rest who derive benefit from it) I wish were at farther distance; since it is certain, that so many of their *Patients* are driven away from the City, upon the least indisposition which attacks them, on this sole consideration; as esteeming it lesse dangerous to put themselves into the hands of some *Country Doctor* or *Emperic*, then to abide the *Aer* of *London*, with all its other advantages. For the rest, that pretend to that honourable Profession; if any shall find themselves agreev'd and think good to contend, I shall easily allow him as much *Smoake* as he desires, and much good may it do him. But, it is to be suspected, and the answer is made (by as many have ever suggested the Objection to me) That there be some whom I must expect

to plead for that, which makes so much work for the *Chimney-Sweeper*; Since I am secure of the Learned and Ingenuous, and whole Fortunes are not built on Smoake, or raised by a universal Calamity; such as I esteem to be the *Nuisances*, I have here re-proved: I do not hence infer, that I shall be any way impatient of a just and civil Reply, which I shall rather esteem for an honour done me, because I know, that a witty and a Learned man is able to discourse upon any Subject whatsoever; some of them having with praise, written even of the praise of *Diseases* themselves, for so *Favorinus* of old, and *Menapius* since commended a *Quartan Ague*, *Pirckhemius* the *Gout*, *Gutherius* celebrated *Blindness*, *Hienfius* the *Louse*, and to come nearer our *Theam*, *Majoragius* the nasty *Dirt*; Not I suppose that they affected these pleasant things, but as * *A. Gellius* has it *exercendi gratia*, and to shew their Wits; for as the *Poet*,

Sunt etiam Musis sua ludicra, mista Camenis

Otia sunt : ———

* De materiis
infamibus quas
Græci ἀδόξους
appellant.
Noct. Att. L. 17
c. 12.

But to proceed, I do farther affirm, that it is not the dust and Ordure which is daily cast out of their Houses, much less what is brought in by the Feet of Men and Horses; or the want of more frequent and better conveyances, which renders the Streets of *London* dirty even to a *Proverb*: but chiefly this continual *Smoake*, which ascending in the day-time, is, by the descending Dew, and Cold, precipitated again at night: And this is manifest, if a peice of clean Linnen be spread all Night in any Court or Garden, the least infested as to appearance; but especially if it happen to rain, which carries it down in greater proportion, not only upon the Earth, but upon the *Water* also, where it leaves a thin Web, or *pellicule* of dust, descending upon the Surface of it; as those who go to bathe in the *Thames* (though at some Miles distance from the City) do easily discern and bring home upon their Bodies: How it sticks on the Hands Faces and Linnen of our fair *Ladies*, and nicer Dames, who reside constantly in *London* (especially during Winter) the prodigious waste of *Almond-powder* for the *One*, *Soap* and wearing out of the *Other*, do sufficiently manifest.

Let it be considered what a Fuliginous crust is yearly contracted, and adheres to the Sides of our ordinary *Chymnies* where this grosse Fuel is used; and then imagine, if there were a solid *Tentorium*, or Canopy over *London*, what a masse of *Soote* would

would then stick to it, which now (as was said) comes down every Night in the *Streets*, on our *Houses*, the *Waters*, and is taken into our *Bodies*.

And may this much suffice concerning the *Causes* and *Effects* of this *Evill*, and to discover to all the World, how pernicious this *Smoake* is to our *Inhabitants* of *London*, to decie it, and to introduce some happy Expedient, whereby they may for the Future, hope to be freed from so intollerable an inconvenience, if what I shall be able to produce and offer next, may in some measure contribute to it.

PART. II.

WE know (as the *Proverb* commonly speaks) that, as there is no *Smoake* without *Fire*; so neither is there hardly any *Fire* without *Smoake*, and that the *materials* which burn clear are very few, and but comparatively so teamed: That to talk of serving this vast City (though *Paris* as great, be so supplied) with *Wood*, were madness; and yet doubtlesse it were possible, that much larger proportions of *Wood* might be brought to *London*, and sold at easier rates, if that were diligently observed, which both our *Laws* enjoin, as feasible and practised in other places more remote, by Planting and preserving of *Woods* and *Copses*, and by what might by *Sea*, be brought out of the *Northern Countries*, where it so greatly abounds, and seems inexhaustible. But the *Remedy* which I would propose, has nothing in it of this difficulty, requiring only the Removal of such *Traders*, as are manifest *Nuisances* to the City, which, I would have placed at farther distances; especially, such as in their Works and Fournaces use great quantities of *Sea-Cole*, the sole and only cause of those prodigious Clouds of *Smoake*, which so universally and so fatally infect the *Air*, and would in no City of *Europe* be permitted, where Men had either respect to Health or Ornament. Such we named to be *Brewers*, *Diers*, *Sope* and *Salt-boylers*; *Lime-burners*, and the like: These I affirm, together with some few others of the same *Classe* removed at competent distance, would produce so considerable (though but partial) a Cure, as Men would even be found

Virgil.

found to breath a new life as it were, as well as *London* appear a new City, delivered from that, which alone renders it one of the most pernicious and insupportable abodes in the World, as subjecting her Inhabitants to so infamous an *Aer*, otherwise sweet and very healthful: For, (as we said) the *Culinary* fires (and which *charking* would greatly reform) contribute little, or nothing in comparison to these foul mouth'd Issues, and Curles of *Smoake*, which (as the Poet has it) do *Calum subtexere fumo*, and draw a sable Curtain over Heaven. Let any man observe it, upon a *Sunday*, or such time as these Spiracles cease, that the Fires are generally extinguished, and he shall sensibly conclude, by the cleanness of the Skie, and universal serenity of the *Aer* about it, that all the Chimnies in *London*, do not darken and poyson it so much, as one or two of those Tunnels of *Smoake*; and, that, because the most imperceptible transpirations, which they send forth, are ventilated, and dispersed with the least breath which is stirring: Whereas the *Columns* and Clowds of *Smoake*, which are belched forth from the sooty Throates of those Works, are so thick and plentiful, that rushing out with great impetuosity, they are capable even to resist the fiercest winds, and being extremely furcharg'd with a fuliginous Body, fall down upon the City, before they can be dissipated, as the more thin and weak is; so as two or three of these *fumid vorrices*, are able to whirl it about the whole City, rendring it in a few Moments like the Picture of *Troy* sacked by the *Greeks*, or the approaches of *Mount-Hecle*.

Pliny.

I propose therefore, that by an *Act* of this present *Parliament*, this infernal *Nuisance* be reformed; enjoyning, that all those *Works* be removed five or six miles distant from *London* below the River of *Thames*; I say, five or six Miles, or at the least so far as to stand behind that *Promontory* jetting out, and securing *Greenwich* * from the pestilent *Aer* of *Plumstead*-Marshes: because, being placed at any lesser Interval beneath the City, it would not only prodigiously infect that his *Majesties* Royal Seat (and as *Barclay* calls it) *pervetusta Regum Britannicorum domus*; but during our nine Months *Etesians* (for so we may justly name our tedious Western-winds) utterly darken and confound one of the most princely, and magnificent * Prospects

*Or Woolledge.

* *Memorabilis
amoenitas pene
citius animum
quam oculos
diffudit, aspectu
non Britannia*

*tantum, sed fortasse tota Europa pulcherrimo, &c. Sed pulcherrimum spectaculum præbet ipsa
urbs inter eximias Europæ celebrata, &c. Jo. Barcl. Euphor. Sat. part. 4. c. 2.*

that

that the World has to shew : Whereas, being seated behind that Mountain, and which seems to have been thus industriously elevated ; No winds, or other accident whatever can force it through that solid obstacle ; and I am perswaded, that the heat of these Works, mixing with the too cold and uliginous vapours which perpetually ascend from these Fenny Grounds, might be a means of rendring that *Air* far more healthy then now it is ; because it seems to stand in need of some powerful drier ; but which *London*, by reason of its excellent scituation, does not at all require : And if it shall be objected, that the Brakishnesse of the *Spring-tides*, happening hereabout at some periods, may render the Waters lesse useful for some purposes : It is an extraordinary Accident, which appearing rarely is cured again at the reversion of the next Tide : Or if it only concern the *Brewer*, I know no inconveniency, if even some of them were prescrib'd, as far as any fresh-waters are found dissemboguing into the *Thames* ; since the commodiousnesse of the passage may bring up their Wares with so great ease : He that considers what quantities are transported from *Dantzick*, *Lubeck*, *Hamborough*, and other remote places into *Holland*, cannot think this an unreasonable proposition : But if their fondnesse to be nearer *London*, procure indulgence for some of them, The Town of *Bowe*, in regard of its scituation from our continual Winds may serve for the expedient, and a partial Cure : But the rest of those banish'd to the utmost extreme propounded on the River.

At least by this means Thousands of able *Watermen* may be employed in bringing Commodities into the City, to certain *Magazines & Wharfs*, commodiously situated to dispense them by *Carts* or rather *Sleds*, into the several parts of the Town ; all which may be effected with much facility, and small expence ; but, with such Conveniency and Benefit to the *Inhabitants* otherwise, as were altogether inestimable ; and therefore, to be vallu'd beyond all other trifling objections of sordid and avaricious persons whatsoever. Nor, indeed, could there at all the least detriment ensue upon this Reformation since, the *Platts* and *Houles* deserted (which commonly take up a great space of Ground) might be converted into *Tenements*, and some of them into *Noble Houses* for use and pleasure, respecting the *Thames* to their no small advantage. Add to this, that it would be a means to prevent the danger of *Firing*, those sad Calamities, for the

most part, proceeding from some Accident or other, which takes beginning from places, where such great and exorbitant Fires are perpetually kept going.

Not were this a thing yet so extravagant, and without all *Precedent* of former times; since even the *Smoke* and burning of lesse fortified and noxious Fuell, produc'd an inconvenience so universal, in some *Countries* of this *Marian*: Not to mention the complaint which I have heard some parts even of *France* it self lying *South west* of *England*, did formerly make of being infested with *Smokes* driven from our *Northern* Coasts, which injur'd their Vines in *Flower*, that it was thought expedient an *Act* of *Parliament* should be made purposely to reform it in the seventh year of the Reign of His *Majesties* Grandfather that now is, which, to take off all prejudice, I shall here recite, as it remains upon Record.

Anno vij. Jacobi Regis.

An Act against burning of Ling, and Heath, and other Moor-burning in the Counties of *Yorke*, *Durham*, *Northumberland*, *Cumberland*, *Westmerland*, *Lancaster*, *Derbie*, *Nottingham*, & *Leicester*, at unseasonable times of the year.

Whereas, many Inconveniencies are observed to happen in divers Counties of this Realm, by Moor-burning, and by raising of fires in Moorish grounds and Mountaneous Countries, for burning of Ling, Heath, Harber, Furies, Gorse, Turfe, Fearn, Whinnes, Broom, and the like, at the Spring time, and

and Summer-Times: For as much as thereby happeneth yearly a great destruction of the Breed of Wild-fowle, and Moor-game, and by the multitude of grosse vapours, and Clouds arising from those great Fires, the Aer is so distemper'd, and such unseasonable and unnatural storms are ingendred, as that the Corn, and the Fruites of the Earth are thereby in Divers places blasted, and greatly hindered in their due course of ripening and reaping. As also, for that sometimes it hath happened, that by the violence of those Fires driven with the Wind, great fields of Corn growing, have been consumed, and Meadows spoild, to the great hurt and damage of His Majesties Subjects; which Moor-burnings, nevertheless, may be used, and practised at some other convenient times, without such eminent danger or prejudice.

Be it therefore Enacted by our Sovereign Lord the Kings most excellent Majesty, with the assent of the Lords Spiritual and Temporal, and of the Commons in this Parliament assembled, and by the Authority of the same; That from, and after the last day of July next ensuing the end of this present Session of Parliament, it shall not be lawfull for any Person or Persons whatsoever in the Months of April, May, June, July, August, and September, nor in any of them, to raise, kindle, or begin, or to cause or procure to be raised, kindled, or begun any Fires or Moor-burnings in the said Counties of York, Durham, Northumberland, Cumberland, Westmorland, Lancaster, Darby, Nottingham, and Leicester, or in any of them, for burning of Ling, Heath, Hather, Furs, Gorse, Turffes, Fearne, VVhinnes, Broome or the like; neither to assist, further, nourish or continue the same; And that all

most part, proceeding from some Accident or other, which takes beginning from places, where such great and exorbitant Fires are perpetually kept going.

Nor were this a thing yet so extravagant, and without all *Precedent* of former times; since even the *Smoake* and burning of lesse fixt and noxious Fuell, produc'd an inconvenience so universal, in some *Countries* of this *Nation*: Not to mention the complaint which I have heard some parts even of *France* it self lying *South west* of *England*, did formerly make of being infested with *Smoakes* driven from our *Navitime* Coasts, which injur'd their *Vines* in *Flower*, that it was thought expedient an *Act* of *Parliament* should be made purposely to reform it in the seventh year of the Reign of His *Majesties* Grandfather that now is, which, to take off all prejudice, I shall here recite, as it remains upon Record.

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An Act against burning of Ling, and Heath, and other Moor-burning in the Counties of *Yorke*, *Durham*, *Northumberland*, *Cumberland*, *Westmerland*, *Lancaster*, *Darbie*, *Nottingham*, & *Leicester*, at unseasonable times of the year.

WHereas, many Inconveniencies are observed to happen in Divers Counties of this Realm, by *Moor-burning*, and by raising of fires in *Moorish* grounds and *Mountaneous* Countries, for burning of Ling, Heath, Hather, Furies, Gorse, Turffe, Fearn, Whinnes, Broom, and the like, in the Spring time, and

and Summer-Times: For as much as thereby happeneth yearly a great destruction of the Wood of Wild-fowle, and Moor-game, and by the multitude of grosse vapours, and Clouds arising from those great fires, the Aer is so distemper'd, and such unseasonable and unnatural storms are ingendred, as that the Corn, and the Fruites of the Earth are thereby in divers places blasted, and greatly hindered in their due course of ripening and reaping. As also, for that sometimes it hath happened, that by the violence of those fires driven with the Wind, great fields of Corn growing, have been consumed, and Meadows spoyl'd, to the great hurt and damage of His Majesties Subjects; which Moor-burnings, nevertheless, may be used, and practised at some other convenient times, without such eminent danger or prejudice.

Be it therefore Enacted by our Soberaign Lord the Kings most excellent Majesty, with the assent of the Lords Spiritual and Temporal, and of the Commons in this Parliament assembled, and by the Authority of the same; That from, and after the last day of July next ensuing the end of this present Session of Parliament, it shall not be lawfull for any Person or Persons whatsoever in the Months of April, May, June, July, August, and September, nor in any of them, to raise, kindle, or begin; or to cause or practise to be raised, kindled, or begun any fires or Moor-burnings in the said Counties of York, Durham, Northumberland, Cumberland, Westmorland, Lancaster, Darby, Nottingham, and Leicester, or in any of them, for burning of Ling, Heath, Hather, Furs, Grosse, Turffes, Fearn, Vvhinnes, Broome or the like; neither to assist; further, nourish or continue the same; And that all

and every Person and Persons, which from and after the said last day of July, shall offend contrary to the true intent, and meaning of this Statute, the same offence being proved by confession of the Party, or by the Testimonies of two sufficient Witnesses upon Oath, before one or more Justices of the Peace of the same County, City, or Town Corporate, where the offence shall be committed; or the Person or Persons offending, apprehended, shall be by the said Justice, or Justices of the peace, for every such offence, committed to the Common Gaole of the County, City, or Town Corporate, where the Offence shall be committed, or the person or persons apprehended, there to remain for the space of one Month without Bail or Main-prise.

And further, be it Enacted, by the Authority aforesaid, that all, and every person and persons, which shall be so convicted and imprisoned as aforesaid, shall not be enlarged from their said Imprisonment; but shall there remain after the said Month is expired, without Bail or Main-prise, untill such time as every such Offendor respectively shall pay, or cause to be paid to the Church-Wardens, or unto the Overseers of the poor of the Parish, or place, where the same Offence shall be committed, or the Offender or Offenders apprehended, or unto some of them, to the use of the poor of the said parish or place, where the same Offence shall be committed, the Summe of Twenty Shillings, for every such Offence committed or done contrary to this Act. This Act to continue until the end of the first Session of the next Parliament.

So far the Act. And here you see was care taken for the Fowl and the Game, as well as for the Fruits, Corn, and Grasse, which were universally incommoded by these unwholsome vapours,

The Smoak of London dispersed.

21

pours, that distempered the *Aer*, to the very raising of Storms and Tempests; upon which a *Philosopher* might amply discourse. And if such care was taken for the Country, where the more *Aer*ial parts predominate, and are in comparison free; how much greater ought there to be for the City, where are such Multitudes of Inhabitants concern'd? And surely it was so of old, when (to object all that can be replied against it) even for the very Service of God, the *Sacrifices* were to be burnt without the *Camp*, amongst the *Jews*; as (of old) amongst the *Romans*, *Hominem mortuum in urbe ne sepelito, neq; ariso*. That Men should burn, or bury the Dead within the City Walls, was expressly prohibited by a Law of the XII. *Tables*; and truly, I am perswaded, that the frequency of *Church-yards*, and *Charnel-Houses* contaminate the *Aer*, in many parts of this Town, as well as the *Pumps* and *Waters*, which are any thing near unto them, so that those *Pipes* and *Conveyances* which passe through them (obnoxious to many dangerous accidents) ought either to be directed some other way, or very carefully to be looked after.

See Hipp. de
 Flatibus &
 Gal. 1. Cib. boni
 & mali succi,
 instancing in
 Corn and Wa-
 ter, poyson'd
 by ill *Aer*.

We might add to these, *Chandlers* and *Butchers*, because of those horrid stinks, *niderous* and unwholsome smells which proceed from the *Tallow*, and corrupted *Blood*: At least should no Cattel be kill'd within the City (to this day observ'd in the *Spanish* great Towns of *America*) since the *Flesh* and *Candles* might so easily be brought to the *Shambles* and *Shops* from other places lesse remote then the former; by which means also, might be avoided the driving of Cattel through the *Streets*, which is a very great inconvenience and some danger: The same might be affirm'd of *Fishmongers*, so wittily perstringed by *Erasmus*, *per Salsamentarios nempe, inquinari Civitatem, infici terram, flumina, aerem & ignem, & si quod aliud est elementum*. Then for the *Butcher*; That the *Lex Carnaria* of the *Romans* forbade them to kill, or have their *Slaughter-houses* within the *Walls*; that they had a certain Station assign'd them without; *ut si passim vivant, totam urbem reddant pestilentem*: So, as were the people to choose, *maluit* (says he) *habere vicinos decem Lenones, quam unum Lanionem*; They would rather dwell neer Ten *Bawds*, then one *Butcher*: But this is *insulsus Salsamentarius*, a quibble of the *Fishmongers*. I could yet wish that our *Nasty Prisons* and *Common Gaales* might bear them Company; since I affirm they might all be remov'd to some distant places neer the *River*, the situa-

ix *duopazia*.

tion

and every Person and Persons, which from and after the said last day of July, shall offend contrary to the true intent, and meaning of this Statute, the same offence being proved by confession of the Party, or by the Testimonies of two sufficient Witnesses upon Oath, before one or more Justices of the Peace of the same County, City, or Town Corporate, where the offence shall be committed; or the Person or Persons offending, apprehended, shall be by the said Justice, or Justices of the peace, for every such offence, committed to the Common Gaole of the County, City, or Town Corporate, where the Offence shall be committed, or the person or persons apprehended, there to remain for the space of one Month without Bail or Main-prise.

And further, be it Enacted, by the Authority aforesaid, that all, and every person and persons, which shall be so convicted and imprisoned as aforesaid, shall not be enlarged from their said Imprisonment; but shall there remain after the said Month is expired, without Bail or Main-prise, untill such time as every such Offendor respectively shall pay, or cause to be paid to the Church-Wardens, or unto the Overseers of the poor of the Parish, or place, where the same Offence shall be committed, or the Offender or Offenders apprehended, or unto some of them, to the use of the poor of the said parish or place, where the same Offence shall be committed, the Summe of Twenty Shillings, for every such Offence committed or done, contrary to this Act. This Act to continue until the end of the first Session of the next Parliament.

So far the Act. And here you see was care taken for the Fowl and the Game, as well as for the Fruits, Corn, and Grasse, which were universally incommoded by these unwholsome va-

pours, that distempered the *Aer*, to the very raising of Storms and See Hipp. de
 Tempests; upon which a *Philosopher* might amply discourse. And Flautibus &
 if such care was taken for the Country, where the more *Aereall* Gal. l. Cib. boni
 parts predominate, and are in comparison free; how much greater & mali succi,
 ought there to be for the City, where are such Multitudes of instancing in
 Inhabitants concern'd? And surely it was so of old, when (to Corn and Water,
 object all that can be replied against it) even for the very poyson'd
 Service of God, the *Sacrifices* were to be burnt without the Camp; by ill Aer
 amongst the *Jews*; as (of old) amongst the *Romans*, *Hominem mortuum in urbe ne sepelito, neque urito*. That Men should
 burn, or bury the Dead within the City Walls, was expressly prohibited
 by a Law of the XII. Tables; and truly, I am perswaded,
 that the frequency of Church-yards, and Charnel-Houses contaminate the
Aer, in many parts of this Town, as well as
 the Pumps and Waters, which are any thing near unto them,
 so that those Pipes and Conveyances which passe through them
 (obnoxious to many dangerous accidents) ought either to be directed
 some other way, or very carefully to be looked after.

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 those horrid stinks, *noisorous* and unwholsome smells which proceed
 from the Tallow, and corrupted Blood: At least should no
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 might all be remov'd to some distant places neer the River, the
 situation

tion whereof does so invite, and rarely contribute to the effecting of it. But if the Avarice of the men of this Age, be so far deplorable, that we may not hope for so absolute a cure of all that is offensive; at least let such, whose Works are upon the Margent of the *Thames*, and which are indeed the most intollerable, be banished further off, and not once dare to approach that silver Channel (but at the distance prescrib'd) which glides by her stately Palaces, and irrigates her welcome Banks.

What a new Spirit would these easie Remedies create among the *Inhabitants* of *London*? what another *Genius* infuse in the face of things? and, there is none but observes, and feels in himself the Change which a serene and clear day produces; how heavy and lesse dispos'd to motion. Yea, even to good *humour* and friendly inclinations, we many times find our selves when the Heavens are clouded, and discompos'd? when the *South-winds* blow, and the humours are fluid, for what we are when the Skie is fair, and the *Aer* in good temper? And there is reason, that we, who are compos'd of the *Elements*, should participate of their *qualities*: For as the *Humours* have their source from the *Elements*; so have our *Passions* from the *Humors*, and the *Soul* which is united to this *Body* of ours, cannot but be affected with its Inclinations. The very dumb creatures themselves being sensible of the alteration of the *Aer*, though not by *ratiocination*, yet by many notorious *Symptomes*.

But I forbear to *Philosophise* farther upon this *Subject*, capable of very large and noble reflections; having with my promis'd brevity, endeavour'd to shew the Inconveniencies and the Remedies of what does so universally offend, and obscure the Glory of this our renowned Metropolis; and which, I hope, may produce some effects towards the reforming of so publick a *Nuisance*. At least, let the continual sejour of our *Illustrious CHARLES*, who is the very Breath of our Nostrills, in whose health all our happiness consists, be precious in our Eyes and make our Noble *Patriots* now assembled in *Parliament*, consult for the speedy removal of this universal grievance.

It is certainly of far greater concernment (however light and aery it may appear to some) then the drayning of a *Fen*, or beautifying an *Aqueduct*; for which some have received such publick honours, *Statues* and *Inscriptions*; and will (if ever any thing did) deserve the like acknowledgements both of the present and

future

future Ages; You therefore; that have *Houses* in the City; you that bring up your *Wives* and *Families* from their sweet Habitations in the Country; that Educate your *Children* here; that have *Offices* at Court; that study the *Laws*; In fine, all that are *ἰσχυροί*, & *ad eundem fumum degentes*, bear a part in this request of mine; which concerns the universal benefit; and the rather; for that having neither *Habitation*, *Office*, nor *Being* in the City, I cannot be suspected to oblige any particular. The *Elegant Ladies* and nicer *Dames*; All that are in Health; and would continue so; that are infirm or Convalescent, and would be perfect; that affect the Glory of our Court and City; *Health* or *Beauty*, are concerned in this Petition; and it will become our wise *Senators*, and we earnestly expect it, that they would consult as well the State of the *Natural*, as the *Politick* Body of this Great Nation, so considerable a part whereof are *Inhabitants* of this August City; since, without their mutual harmony, and well-being, there can nothing prosper, or arrive to its desired perfection.

PART. III.

An offer at the Improvement, and Melioration of the Aer of LONDON, by way of Plantations, &c.

There goes a pleasant Tale of a certain *St Politick*, that in the last great *Plague* projected, how by a Vessel fraught with peel'd *Onions*, which should passe along the *Thames* by the City, when the Wind fate in a favourable quarter, to attract the pollution of the *Air*, and sail away with the infection to the Sea. Transplantation of Diseases we sometimes read of amongst the *Magickall*, or rather *Magical* Cures; but never before of this way of Translocation: but, however this excellent conceit has often afforded good mirth on the *Stage*, and I now mention to prevent the application to what I here propound; There is yet another

another expedient, which I have here to offer (were *This* of the poisonous and filthy *smoke* remov'd) by which the City and environs about it, might be rendred one of the most pleasant and agreeable places in the world. In order to this I propose.

That all low-grounds circumjacent to the City, especially *East* and *South-west*, be cast and contriv'd into square plots, or Fields of twenty, thirty, and forty *Akers*, or more, separated from each others by Fences of double *Palisads*, or *Contr'paliers*, which should enclose a Plantation of an hundred and fifty, or more, feet deep, about each Field; not much unlike to what His Majesty has already begun by the wall from Old *Spring-garden* to *St. James's* in that *Park*; and is somewhat resembled in the new *Spring-garden* at *Lambeth*. That these *Palisad's* be elegantly planted, diligently kept and supply'd, with such *Shrubs*, as yield the most fragrant and odoriferous *Flowers*, and are aptest to tinge the *Aer* upon every gentle emission at a great distance: Such as are (for instance amongst many others) the *Sweet-brier*, all the *Periclymenia's* and *Woodbinds*; the Common *white* and *yellow Jessamine*, both the *Syringa's* or *Pipe trees*; the *Guelder-Rose*, the *Musk*, and all other *Roses*; *Genista Hispanica*: To these may be added the *Rubus odoratus*, *Bayes*, *Juniper*, *Lignum-vita*, *Lavander*: but above all, *Rosemary*, the *Flowers* whereof are credibly reported to give their sent above thirty Leagues off at Sea, upon the coasts of *Spain*: and at some distance towards the *Meadow side*, *Vines*, yea, *Hops*.

Virgil.

— Et *Arbuta passim*,

Et *Glaucas Salices*, *Casiamque Crocumque rubentem*,

Et pinguem *Tiliam*, & ferrugineos *Hyacinthos*, &c.

For, there is a very sweet smelling *Sally*, and the blossoms of the *Tilia* or *Lime-tree*, are incomparably fragrant; in brief, whatsoever is odoriferous and refreshing.

That the *Spaces*, or *Area* between these *Palisads*, and Fences, be employ'd in Beds and Bordures of *Pinks*, *Carnations*, *Clove*, *Stock-gilly-flower*, *Primroses*, *Auriculas*, *Violets*, not forgetting the *White*, which are in flower twice a year, *April* and *August*:
Cowslips,

The Smoak of London dissipated.

25

Cowslips, Lillies, Narcissus, Strawberries, whose very leaves as well as fruit, emit a *Cardiague*, and most refreshing *Halitus*: also *Parietaria Lutea, Musk, Lemmon*, and *Mastick, Thyme: Spike, Camomile, Balm, Mint, Marjoram, Pimpernel, and Serpillum*, &c. which upon the least pressure and cutting, breathe out and betray their ravishing odors.

That the Fields, and Crofts within these Closures, or Inviro-ning Gardens, be, some of them, planted with *wild Thyme*, and others reserved for Plots of *Beans, Pease* (not *Cabbages*, whose rotten and perishing stalks have a very noisom and unhealthy sinell, and therefore by *Hippocrates* utterly condemned near great Cities) but such blossom-bearing Grain as send forth their virtue at farthest distance, and are all of them *marketable* at *London*; by which means, the *Aer* and *Winds* perpetually fann'd from so many circling and encompassing Hedges, fragrant Shrubs, Trees, and Flowers (the amputation and prunings of whose superfluities, may in *Winter*; on some occasions of weather, and winds, be burnt, to visit the City with a more benign *smoak*) not onely all that did approach the *Region*, which is properly design'd to be Flowery; but even the whole City, would be sensible of the sweet and ravishing varieties of the perfumes, as well as of the most delightful and pleasant objects, and places of Recreation for the Inhabitants; yielding also a *Prospect* of a noble and masculine Majesty, by reason of the frequent plantations of *Trees*, and *Nurseries* for Ornament, Profit, and Security: The remainder of the *Fields* included yielding the same, and better Shelter, and Pasture for Sheep and Cattel then now; that they lie bleak, expos'd and abandon'd to the winds, which perpetually invade them.

That, to this end, the *Gardiners* (which now cultivate the upper, more drie and ungrateful soil) be encouraged to begin *Plantations* in such places onely: and the farther exorbitant encrease of *Tenements*, poor and nasty *Cottages* near the City, be prohibited, which disgrace and take off from the sweetness and amenity of the *Environs* of *London*, and are already become a great *Eye-sore* in the grounds opposite to His Majesty's *Palace of White-hall*; which being converted to this use, might yield a diversion inferior to none that could be ima-

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